

REMARKS

In the Office Action, claims 1-4 and 7-21 were rejected. Claims 5-6 were objected. Claims 1-21 will be pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Objection to Claims

The Office Action summarizes claims 5-6 as objected to as being dependent on a rejected base claim. Claims 5 and 6 depend directly or indirectly from independent claim 1. Applicants respectfully submit that independent claim 1 is in condition for allowance for the reasons summarized below.

Rejections Under 35 U.S.C. §103

The Office Action summarizes claims 1, 4 and 13 as rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,522,882, Chen et al. (hereinafter "Chen") in view of U.S. Patent 6,230,018, Watters et al. (hereinafter "Watters"). All of the claims are believed to be patentable for the reasons summarized below.

Claim 1 recites a method for determining a location of an object within an area of interest that includes transmitting an RF signal from the object to at least three receivers, transmitting a signal from at least one beacon transmitter to the at least three receivers, the at least one beacon transmitter being at a known location. Claim 1 further recites calculating, at each of the at least three receivers, time difference of arrival information based on the signal from the at least one beacon transmitter and the RF signal transmitted from the object and determining a location of the object within the area of interest based on the time difference of arrival information. Claim 4 depends directly from claim 1. Claim 13 recites a system for determining the location of an object within an area of interest and generally implements a method of the type recited in claim 1, reciting similar language.

The Examiner acknowledged that Chen does not teach that the beacon transmitter is in a known location. *See*, Office Action, page 4. The Examiner used Watters for teaching calibration terminals at a known location. The Examiner provided no specific information on how Chen can be combined with Watters. The Examiner merely stated that it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the teachings of Chen with that of Watters for the advantage of measuring time of arrival differences to a sufficient resolution to locate a mobile terminal with the desired position accuracy.

Applicants see only two possibilities for combination of Chen with Watters. The first possibility would result in the beacon transmitter of Chen to be a known location. This would vitiate the basic operation of Chen. The second possibility is that the calibration terminals of Watters be somehow combined with the system of Chen. This would result in the modification of the system of Chen. In addition, this *would not change* the manner in which the mobile transceiver is located, which is with reference to *its own* beacon transmitter.

The Examiner is reminded that it is improper to apply a prior art reference in such a way that would modify the essence of the teachings of the reference. The MPEP states that if the proposed modification or combination of the prior art would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Therefore, neither Chen nor Watters, either alone or in combination, teach, suggest or disclose the beacon transmitter as recited in claims 1 and 13 respectively. Consequently, the combination of Chen with Watters simply cannot render obvious all the recitations of claims 1 and 13.

In view of the foregoing deficiencies in the teachings of the cited art, the Examiner has failed to establish a *prima facie* case of obviousness of claim 1 and claim 13. These claims, and the claims depending therefrom are therefore believed to be clearly patentable over the cited combination. Their reconsideration and allowance are respectfully requested.

The Office Action further summarizes claims 2-3, 7-12 and 14-21 as rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Watters and further in view of U.S. Patent 6,466,125, Richards et al. (hereinafter, Richards).

The claims rejected under this section all depend directly or indirectly from independent claims 1 and 13 discussed above. The Richards reference is not believed to obviate the deficiencies of Chen and Watters discussed above, particularly regarding the use of a beacon transmitter. Consequently, all of the dependent claims are believed to be patentable both by virtue of their dependency from an allowable base claim, as well as for the subject matter they separately recite. Reconsideration and allowance of all of the dependent claims on this basis are requested.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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